

# MONTHLY WEATHER REVIEW,

JULY, 1880.

(General Weather Service of the United States.)

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WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

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## INTRODUCTION.

In preparing this REVIEW the following data, received up to August 14th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 139 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 148 monthly journals and 157 monthly means from the former, and 15 monthly means from the latter; reports from 24 Sunset stations; 209 monthly registers from Voluntary Observers; 37 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Service of, Missouri; reliable newspaper extracts; special reports.

## BAROMETRIC PRESSURE.

The general distribution of the atmospheric pressure, as reduced to sea-level, for the month of July, 1880, over the United States and Canada is shown by isobaric lines on chart No. II. At a few out-lying stations the means are given in figures indicating English inches. The pressure is found to preserve much the same general distribution that it had during June, the regions of highest barometer being over the Southern States and Northern Pacific region, while the lowest barometer means are to be found in the Red river of the North and Sacramento valleys.

*Departures from the Normal Values for July.*—Like the preceding month the means for the present month, when compared with the average July means for the past eight years, show a remarkable uniformity. Along the immediate Atlantic and Texas coasts, from Iowa to Lower Michigan and in the Rocky Mountains the pressure is slightly below the normal, the greatest deviations being 0.05 of an inch at Charleston, Chicago and on the summit of Pike's Peak and 0.06 at Wood's Holl; elsewhere the means are slightly above normal, the largest excesses being 0.04 inch at Cairo, Cincinnati, Detroit and Albany and 0.06 at Duluth.

*Barometric Ranges.*—The local barometric ranges, as reduced to sea level, have been exceedingly small over the entire country. They are least along the southern border and increase very slowly northwards. It amounts to 0.20 of an inch at Key West and New Orleans, and 0.21 at Los Angeles, Cal.; to 0.49 at Norfolk, 0.32 at Cairo and 0.26 at San Francisco; to 0.52 at New York, 0.45 at Chicago, 0.54 at Cheyenne and 0.48 at Roseburg, Oregon; and along the northern border, to 0.57 at Eastport, Me., 0.70 at Alpena, Michigan, 0.68 at Marquette, 0.75 at Pembina, 0.62 at Virginia City, Mont., and 0.49 at Olympia, Wash. Ty.

*Areas of High Barometer.*—Eight areas of high barometer are described below. None of them present any very interesting features. The maximum pressures, as reduced to sea level, over the United States west of the Rocky Mountains, were 30.48 at Umatilla and 30.37 at Portland during the presence of high area No. IV, and, east of the Rocky Mountains, 30.30 at Denver during the presence of the same area, and 30.29 at Marquette during the presence of area No. VIII. The lowest temperatures of the month, in general, accompanied areas Nos. V and VIII.

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